

IN THE CLAIMS

1. (currently amended) A communication system including a plurality of subscriber-side units manufactured by respective desired vendors and a station-side unit manufactured by a desired vendor accommodating the subscriber-side units, the station-side unit being capable of carrying out a ~~point-to-multipoint~~ broadcast communication with all of the subscriber-side units by sending a broadcast message in a manner of ~~point-to-multipoint~~ broadcast communication,

the station-side unit comprising:

a ~~point-to-multipoint~~ broadcast message generating unit ~~for~~ generating a ~~point-to-multipoint~~ broadcast message; and

a group designating message generating unit ~~for~~ generating a group designating message to be broadcast to all of the subscriber-side units and having designation information to designate some of the subscriber-side units as a component constituting a group of units which are to receive the ~~point-to-multipoint~~ broadcast message, and

the subscriber-side unit comprising:

a ~~point-to-multipoint~~ broadcast message processing unit ~~for~~ receiving and processing the ~~point-to-multipoint~~ broadcast message from the station-side unit; and

a state control unit ~~for~~ controlling, in response to a reception of the group designating message having the designation information designating the subscriber-side unit broadcast from the station-side unit, a status of the reception and the processing for the ~~point-to-multipoint~~ broadcast message

in the ~~point-to-multipoint~~ broadcast message processing unit to a valid status ;

whereby only subscriber-side units having a valid status are allowed to receive and process the ~~point-to-multipoint~~ broadcast message generated by the station-side unit.

2. (currently amended) A method of processing a message for use in a communication system including a plurality of subscriber-side units manufactured by respective desired vendors and a station-side unit manufactured by a desired vendor accommodating the subscriber-side units, the station-side unit being capable of carrying out a ~~point-to-multipoint~~ broadcast communication with all of the subscriber-side units by sending a broadcast message in a manner of ~~point-to-multipoint~~ broadcast communication, wherein

the station-side unit broadcasts to all of the subscriber-side units a group designating message with designation information to designate ~~designates~~ some of the subscriber-side units as a component constituting a group of units which are to receive a ~~point-to-multipoint~~ broadcast message, and

only the subscriber-side units designated by the designation information of the group designating message as the component constituting the group of units are allowed to receive and process the broadcast message sent from the station-side unit in the manner of ~~point-to-multipoint~~ broadcast communication.

3. (previously amended) A method of processing a message for use in a communication system according to Claim 2, wherein the station-side unit designates the subscriber-side units manufactured by an identical vendor as a component constituting the group of units.

4. (previously amended) A method of processing a message for use in a communication system according to Claim 2, wherein the station-side unit designates some of the subscriber-side units manufactured by an identical vendor as a component constituting the group of units.

5. (currently amended) A station-side unit accommodating a plurality of subscriber-side units manufactured by respective desired vendors, the station-side unit being capable of carrying out a ~~point-to-multipoint~~ broadcast communication with all of the subscriber-side units by sending a message in a manner of ~~point-to-multipoint~~ broadcast communication, the station-side unit comprising:

a ~~point-to-multipoint~~ broadcast message generating unit generating a broadcast message in a manner of ~~point-to-multipoint~~ broadcast communication; and

a group designating message generating unit ~~for~~ generating a group designating message to be broadcast to all of the subscriber-side units and having designation information to designate some of the subscriber-side units as a component constituting a group of units which are to receive the ~~point-to-multipoint~~ broadcast communication message;

whereby only subscriber-side units designated by the designation information of the group designating message as components of the group of units are allowed to receive and process the broadcast message generated by the station-side unit.

6. (previously amended) A station-side unit according to Claim 5 in which each of the subscriber-side units is assigned with vendor identification information, wherein the group designating message generating unit comprises a first vendor group designating message generating unit for generating a vendor group designating message having the vendor identification information addressed to the subscriber-side units manufactured by an identical vendor as the group designating message, whereby the subscriber-side units are designated as a component constituting the group of units.

7. (previously amended) A station-side unit according to Claim 5 in which each of the subscriber-side units is assigned with unit identification information specific to each vendor, wherein

the group designating message generating unit comprises a second vendor group designating message generating unit for generating a vendor group designating message having the unit identification information addressed to specific ones of the subscriber-side units manufactured by an identical vendor as the group designating message, so that some of the subscriber-side units are designated as a component constituting the group of units.

8. (previously amended) A station-side unit according to Claim 5, comprising a group designation canceling unit for generating a group canceling message which cancels the designation of the grouping effected on arbitrary subscriber-side units.

9. (previously amended) A station-side unit according to Claim 8, wherein the group designation canceling unit is arranged so that, after the group of units is designated, if the station-side unit receives no reply message on the designation from the subscriber-side unit for a predetermined period of time, then the group canceling message addressed to at least the subscriber-side unit is generated.

10. (previously amended) A station-side unit according to Claim 8, wherein the group designation canceling unit is arranged so that, when a group designation canceling request is received from the subscriber-side unit, then the group canceling message is sent to at least the subscriber-side unit which has requested the group designation canceling.

11. (previously amended) A station-side unit according to Claim 5, wherein the group designation message generating unit is arranged in such a manner that, when a group designation request is received from the subscriber-side unit, then the group designation message generating unit generates the group designating message so that at least the subscriber-side unit having requested the group designation is designated as a component constituting the group of units.

12. (previously amended) A station-side unit according to Claim 5, wherein the group designation message generating unit comprises a group identification information assignment message generating unit for generating an assignment message to the subscriber-side units to be designated as a component constituting the group of units as a group designating message, whereby the subscriber-side units are assigned with the same group identification information, and the point-to-multipoint message generating unit is arranged as a group identification information attaching type point-to-multipoint message generating unit which sends a point-to-multipoint message having the group identification information to the component constituting the group of units.

13. (previously amended) A station-side unit according to Claim 12, wherein the group identification information message generating unit comprises a vendor identification information giving unit for giving vendor identification information specific to the subscriber-side unit to the assignment message, so that the subscriber-side units manufactured by an identical vendor can be designated as a component constituting the group of units.

14. (previously amended) A station-side unit according to Claim 5, comprising a point-to-multipoint message number confirmation requesting unit for requesting from the subscriber-side unit so as to confirm the number of received point-to-multipoint communication messages.

15. (currently amended) A subscriber-side unit accommodated together with other subscriber-side units in a ~~point-to-multipoint~~ broadcast communication network handled by a station-side unit which is manufactured by a desired vendor and capable of carrying out ~~point-to-multipoint~~ broadcast communication with all subscriber-side units, the subscriber-side unit comprising:

a ~~point-to-multipoint~~ broadcast message processing unit for receiving and processing the ~~point-to-multipoint~~ broadcast message from the station-side unit, and

a state control unit for controlling, in response to a reception of a group designating message having the designation information designating the subscriber-side unit broadcast from the station-side unit ~~which designates the subscriber-side unit~~ as a component of a group of units which is to receive the ~~point-to-multipoint~~ broadcast message, a status of the reception and the processing for the ~~point-to-multipoint~~ broadcast message in the ~~point-to-multipoint~~ broadcast message processing unit to a valid status;

whereby only subscriber-side units designated by the designation information of the group designating message as components of the group of units are allowed to receive and process the ~~point-to-multipoint~~ broadcast message generated by the station-side unit.

16. (previously amended) A subscriber-side unit for use with other subscriber-side units according to Claim 15, each of which is assigned with vendor identification information and accommodated in the network handled by the station-side unit which is arranged to send a vendor group designating message attached with the vendor identification information to the subscriber-side units so that the subscriber-side units

manufactured by an identical vendor are designated as a component constituting the group of units, wherein

the state control unit comprises

a first vendor identification information comparing determining unit for comparing the vendor identification information given to the vendor group designating message sent from the station-side unit with the vendor identification information assigned to its own subscriber-side unit, thereby to determine whether or not the two pieces of vendor identification information are coincident with each other, and

if the first vendor identification information comparing determining unit determines that the two pieces of vendor identification information are coincident with each other, then the reception and the processing for the point-to-multipoint message in the point-to-multipoint message processing unit are brought to a valid status.

17. (previously amended) A subscriber-side unit for use with other subscriber-side units according to Claim 15, each of which is assigned with unit identification information specific to each vendor and accommodated in the network handled by the station-side unit which is arranged to send a vendor group designating message having a plurality of the unit identification information to the subscriber-side units so that specific ones of the subscriber-side units manufactured by an identical vendor are designated as a component constituting the group of units, wherein

the state control unit comprises

a unit identification information determining unit for determining whether or not the unit identification information given to the vendor group designating message sent

from the station-side unit contains the unit identification information assigned to its own subscriber-side unit, and

if the unit identification information determining unit determines that the unit identification information assigned to its own subscriber-side unit is contained, then the reception and the processing for the point-to-multipoint message handled by the point-to-multipoint message processing unit are brought to a valid status.

18. (previously amended) A subscriber-side unit according to Claim 15, wherein the state control unit comprises a canceling control unit arranged in such a manner that when the subscriber-side unit receives a group canceling message for canceling the designation on the subscriber-side unit itself as a component constituting a group of units from the station-side unit, then the reception and the processing for the point-to-multipoint message in the point-to-multipoint message processing unit are brought to an invalid status.

19. (previously amended) A subscriber-side unit according to Claim 15, wherein the state control unit comprises a reply message returning unit which returns a reply message to the station-side unit when the state control unit controls the point-to-multipoint message processing unit so as to bring the reception and the processing on the point-to-multipoint message to a valid status.

20. (previously amended) A subscriber-side unit according to Claim 15, comprising a group designation cancellation requesting unit for requesting cancellation of

the designation on the subscriber-side unit itself as a component constituting a group of units from the station-side unit.

21. (previously amended) A subscriber-side unit according to Claim 15, comprising a group designation requesting unit for requesting the designation on the subscriber-side unit itself as a component constituting a group of units from the station-side unit.

22. (previously amended) A subscriber-side unit according to Claim 15 for use with a station-side unit which is arranged to generate an assigning message for assigning identical group identification information to subscriber-side units to be designated as a component constituting a group of units, and also generates a point-to-multipoint message which is given the group identification information and addressed to the group of units, wherein

the state control unit comprises

a group identification information holding unit for holding the group identification information assigned by the assigning message sent from the station-side unit, and

a group identification information comparing determining unit for comparing the group identification information given to the point-to-multipoint message sent from the station-side unit with group identification information held in the group identification information holding unit, thereby to determine whether or not the two pieces of information are coincident with each other, and

the state control unit is arranged to carry out control in such a manner that, if the group identification information comparing determining unit determines that the two pieces of information are coincident with each other, then the reception and the processing for the point-to-multipoint message in the point-to-multipoint message processing unit are brought to a valid status.

23. (previously amended) A subscriber-side unit according to Claim 22 for use with a station-side unit which is arranged to give vendor identification information specific to the subscriber-side unit to the assignment message so that the subscriber-side units manufactured by an identical vendor can be designated as a component constituting the group of units, the subscriber-side unit comprising:

a second vendor identification information comparing determining unit for comparing the vendor identification information given to the assignment message with the vendor identification information assigned to its own subscriber-side unit, thereby to determine whether the two pieces of vendor identification information are coincident with each other or not, wherein

if the second vendor identification information comparing determining unit determines that the two pieces of vendor identification information are coincident with each other, then the group identification information holding unit holds the group identification information.

24. (previously amended) A subscriber-side unit according to Claim 15, comprising:

a message counting unit for counting a number of point-to-multipoint messages received by the point-to-multipoint message processing unit; and

a received message number notifying unit for notifying the station-side unit of the counting result yielded by the message counting unit when a confirmation request on the received number of the point-to-multipoint messages is received from the station-side unit.

25. (new) A communication system including a plurality of subscriber-side units and a station-side unit accommodating the subscriber-side units, the station-side unit being capable of carrying out a broadcast communication with all of the subscriber-side units by sending a broadcast message in a manner of broadcast communication,

the station-side unit comprising:

a broadcast message generating unit generating a broadcast message; and

a group designating message generating unit generating a group designating message to be broadcast to all of the subscriber-side units and having designation information to designate some of the subscriber-side units as a component constituting a group of units which are to receive the broadcast message, and

the subscriber-side unit comprising:

a broadcast message processing unit receiving and processing the broadcast message from the station-side unit; and

a state control unit controlling, in response to a reception of the group designating message having the designation information designating the subscriber-side unit

broadcast from the station-side unit, a status of the reception and the processing for the broadcast message in the broadcast message processing unit to a valid status.

26. (new) A method of processing a message for use in a communication system including a plurality of subscriber-side units and a station-side unit accommodating the subscriber-side units, the station-side unit being capable of carrying out a broadcast communication with all of the subscriber side units by sending a broadcast message in a manner of broadcast communication, wherein:

the station-side unit broadcasts to all of the subscriber-side units a group designating message with designation information to designate some of the subscriber-side units as a component constituting a group of units which are to receive a broadcast message; and

the subscriber-side units designated by the designation information of the group designating message as the component constituting the group of units are allowed to receive and process the broadcast message sent from the station-side unit in the manner of broadcast communication.

27. (new) A station-side unit accommodating a plurality of subscriber-side units, the station-side unit being capable of carrying out a broadcast communication with all of the subscriber-side units by sending a message in a manner of broadcast communication, the station-side unit comprising:

a broadcast message generating unit generating a broadcast message in a manner of broadcast communication; and

a group designating message generating unit generating a group designating message to be broadcast to all of the subscriber-side units and having designation information to designate some of the subscriber-side units as a component constituting a group of units which are to receive the broadcast communication message.

28. (new) A subscriber-side unit accommodated together with other subscriber-side units in a broadcast communication network handled by a station side unit which is capable of carrying out broadcast communication with all subscriber-side units, the subscriber-side unit comprising:

a broadcast message processing unit receiving and processing the broadcast message from the station-side unit; and

a state control unit controlling, in response to a reception of a group designating message having the designation information designating the subscriber-side unit broadcast from the station-side unit as a component constituting a group of units which is to receive the broadcast message, a status of the reception and the processing for the broadcast message in the broadcast message processing unit to a valid status.